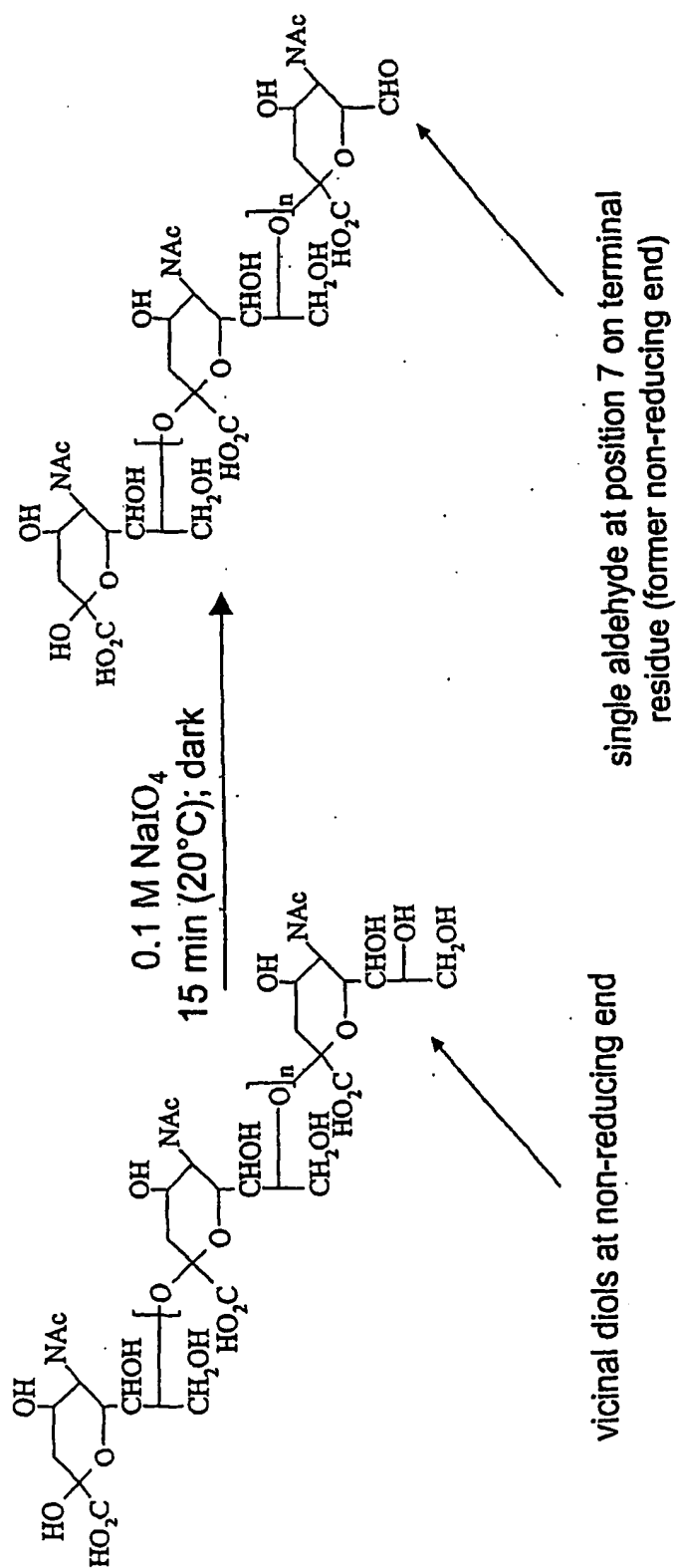


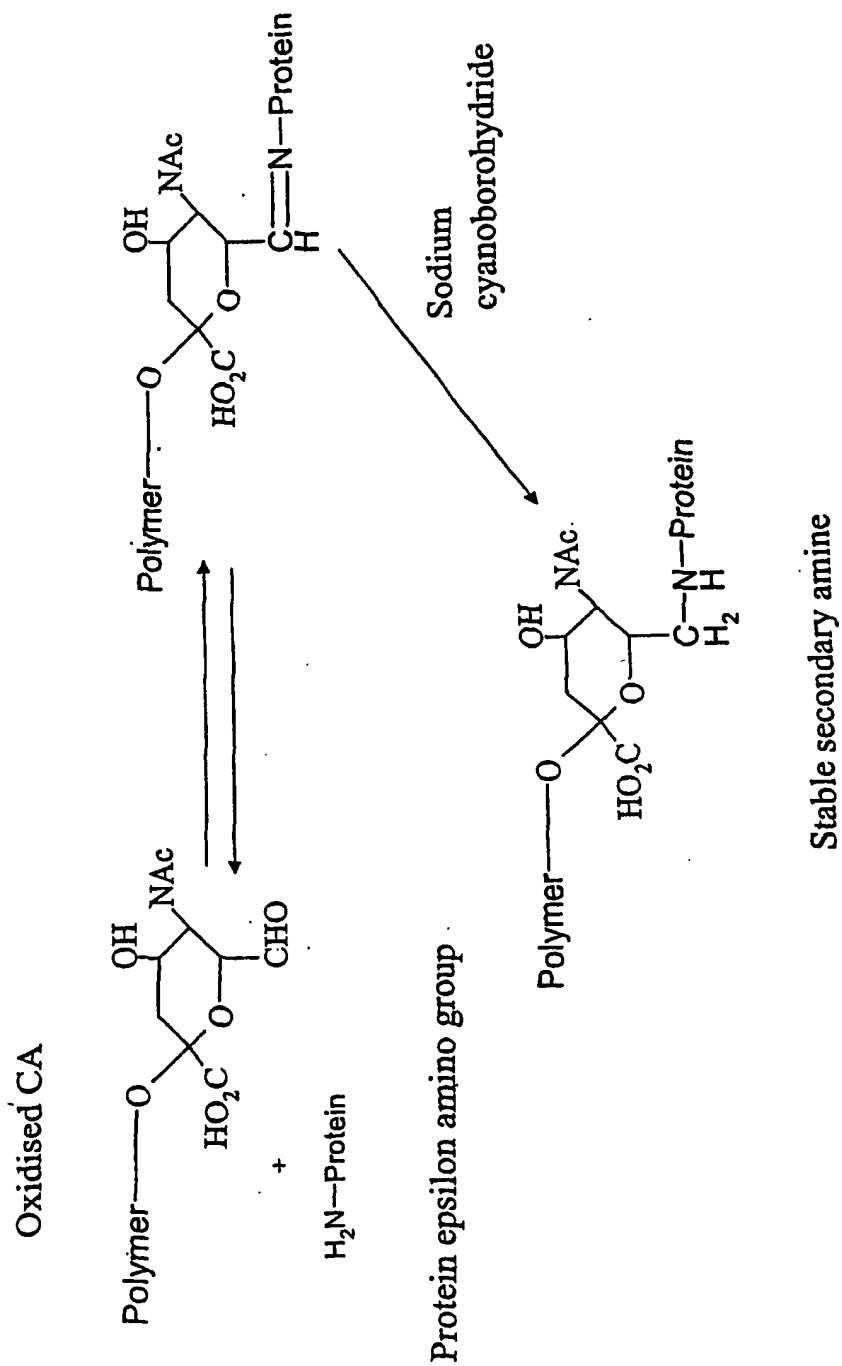
Figure 1a



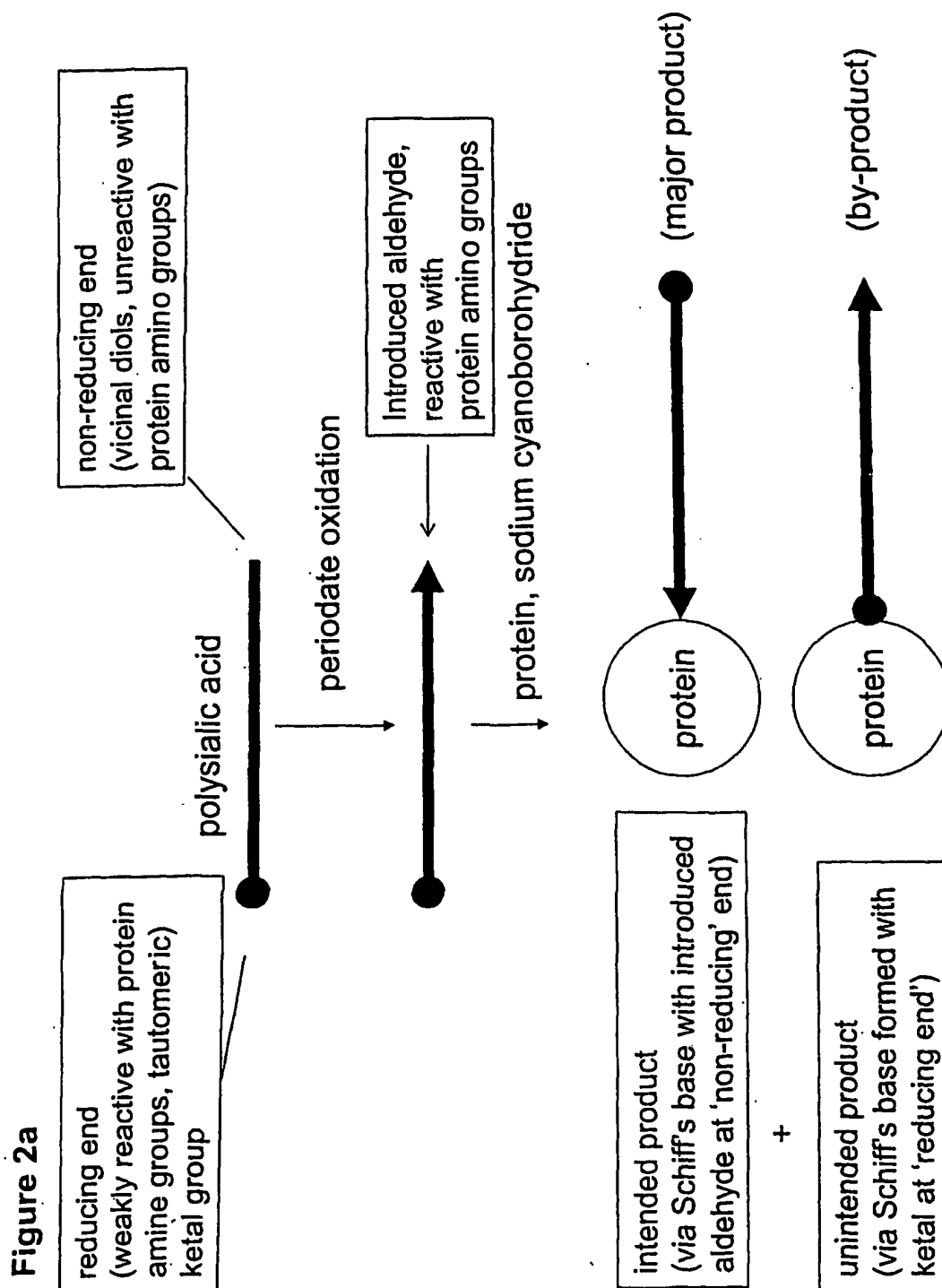
vicinal diols at non-reducing end

single aldehyde at position 7 on terminal residue (former non-reducing end)

Figure 1b



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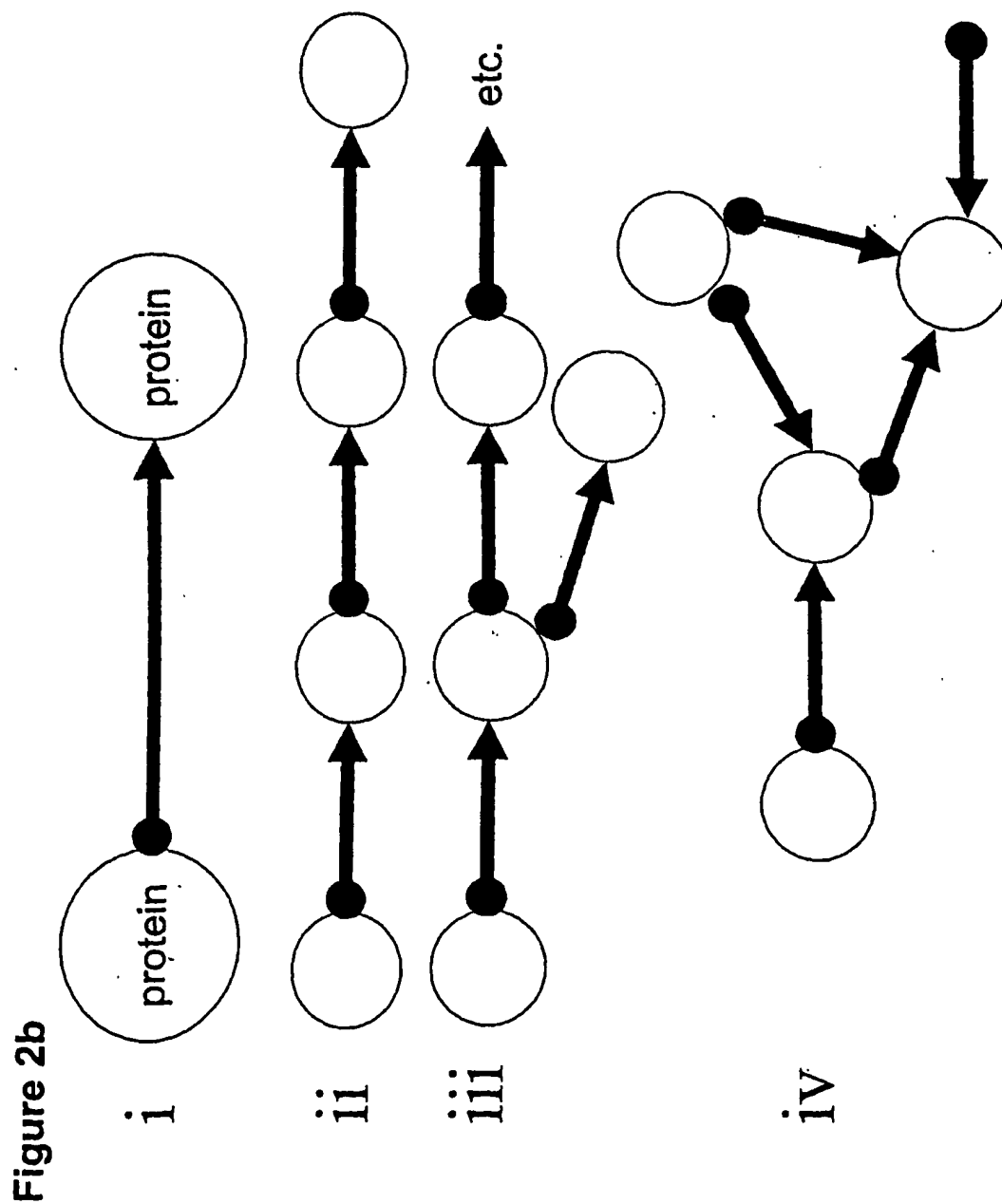
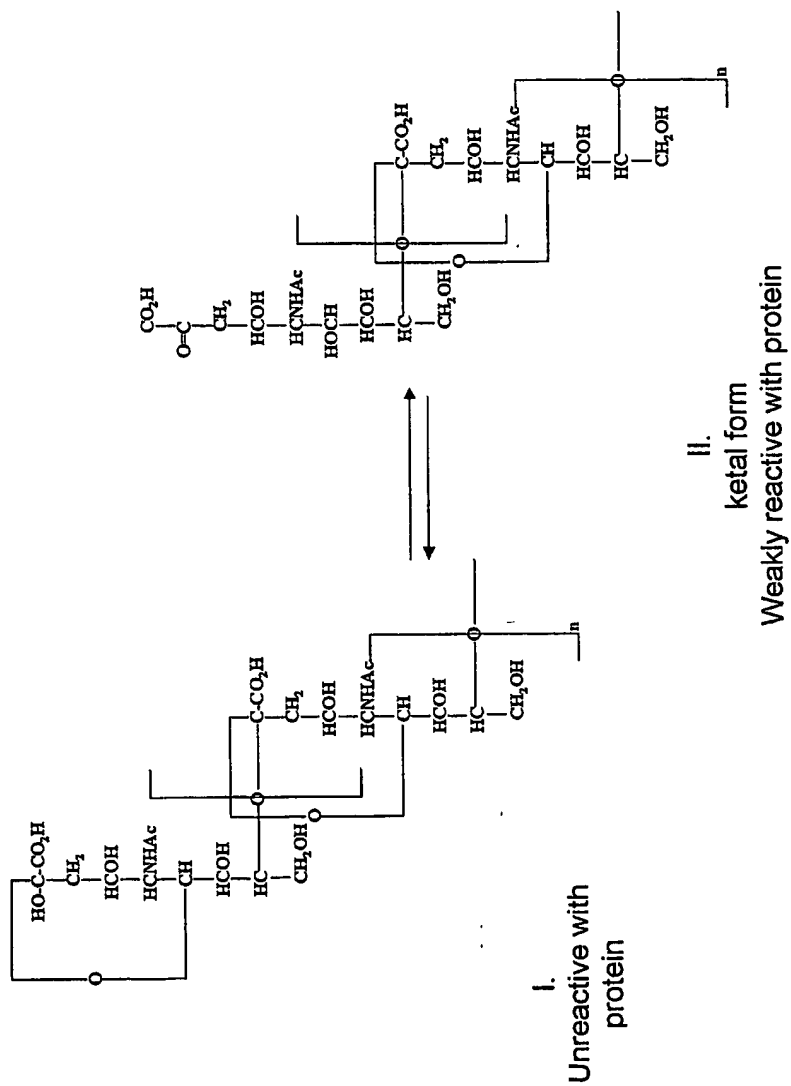
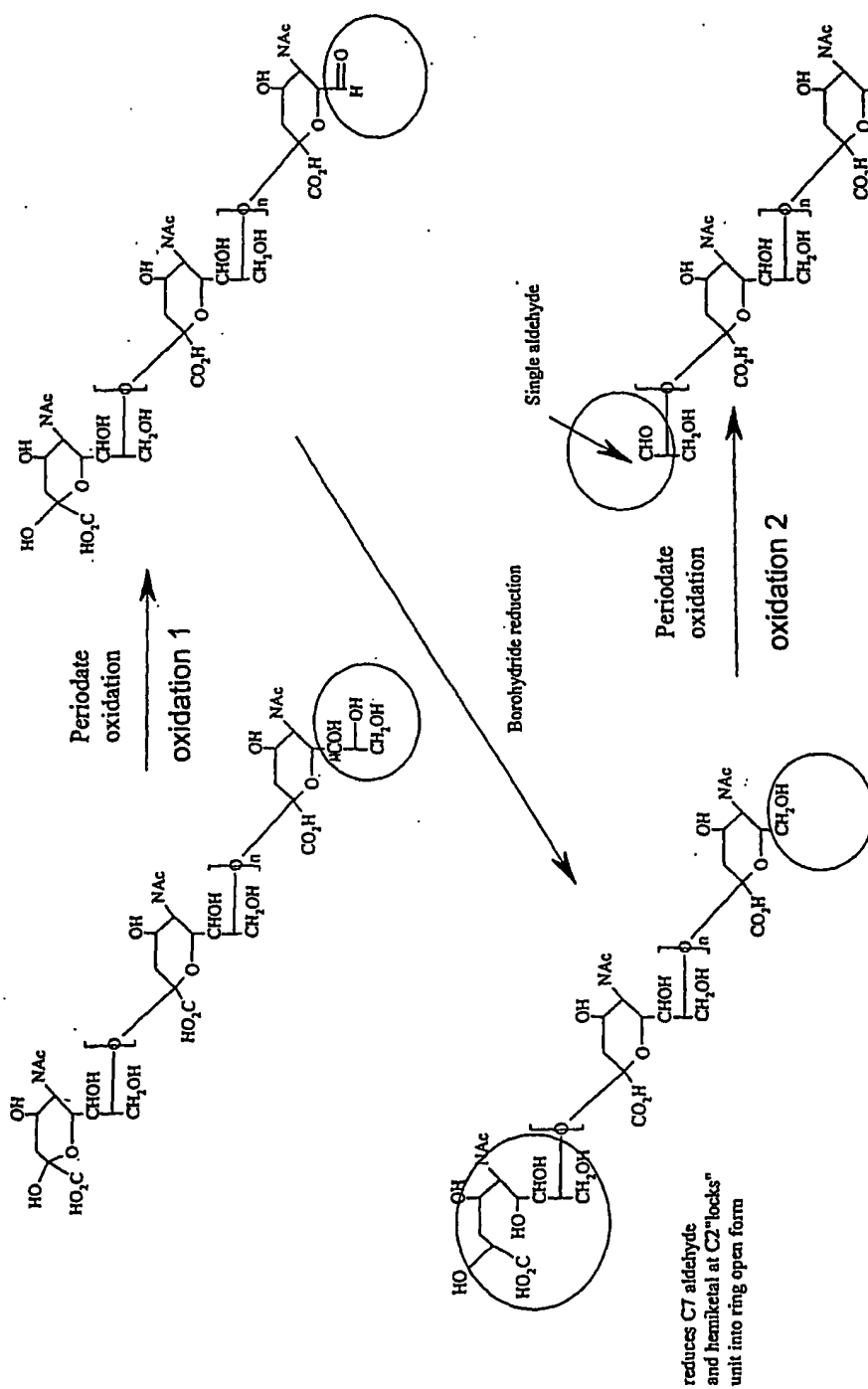


Figure 3



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Figure 4a



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Figure 4b

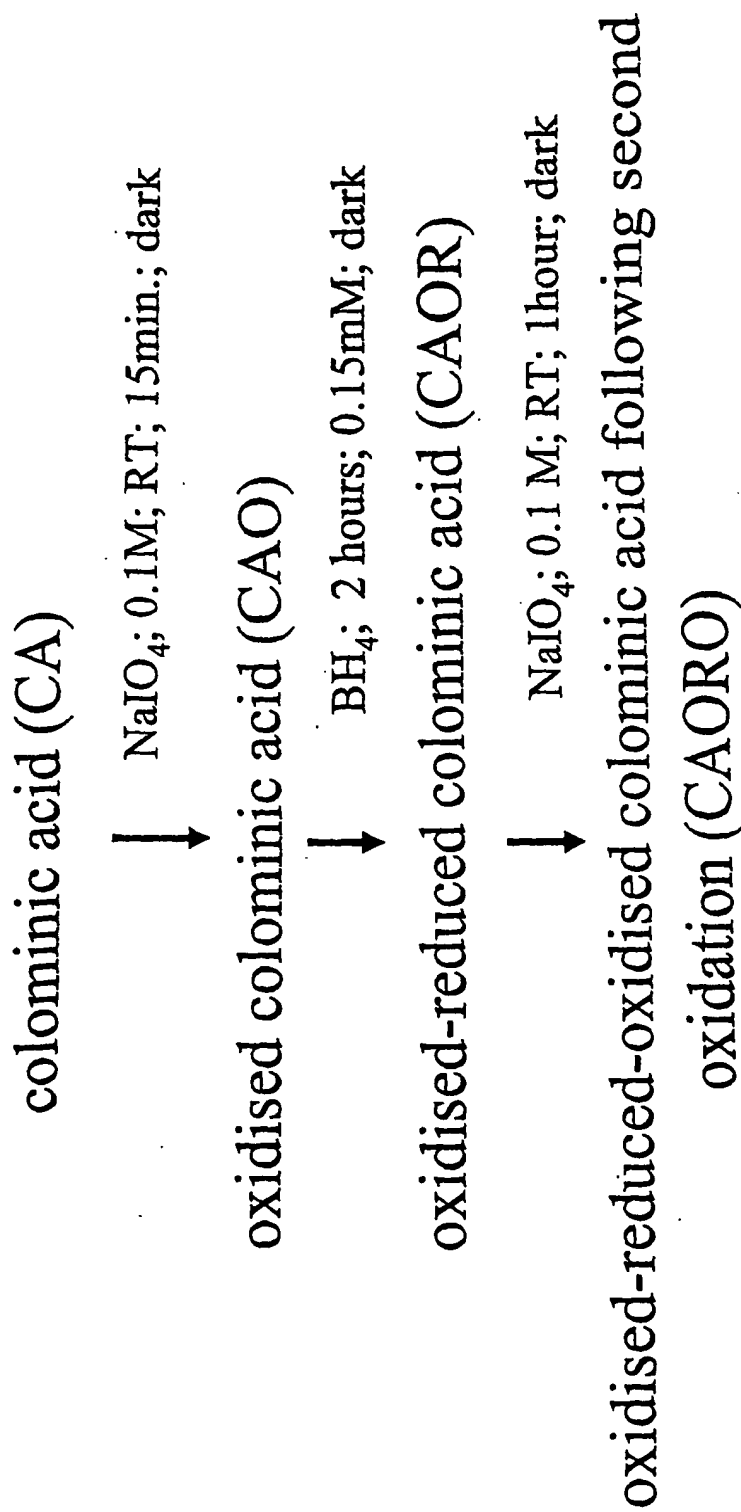
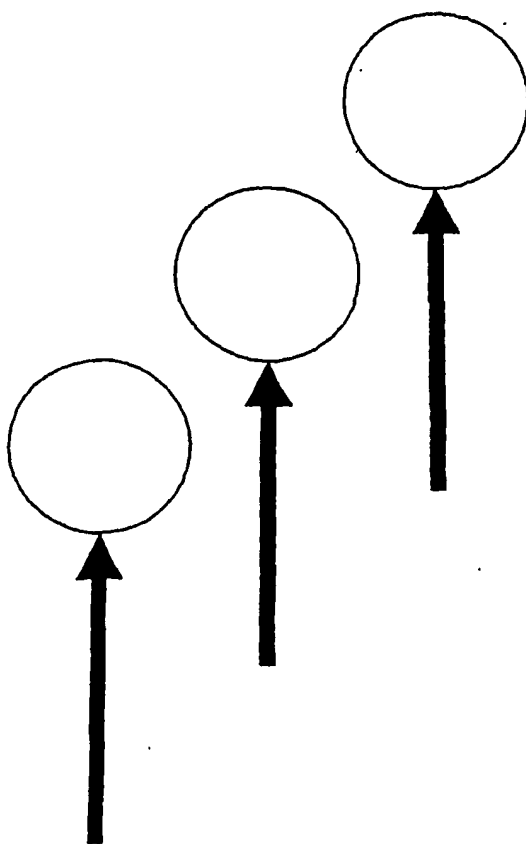
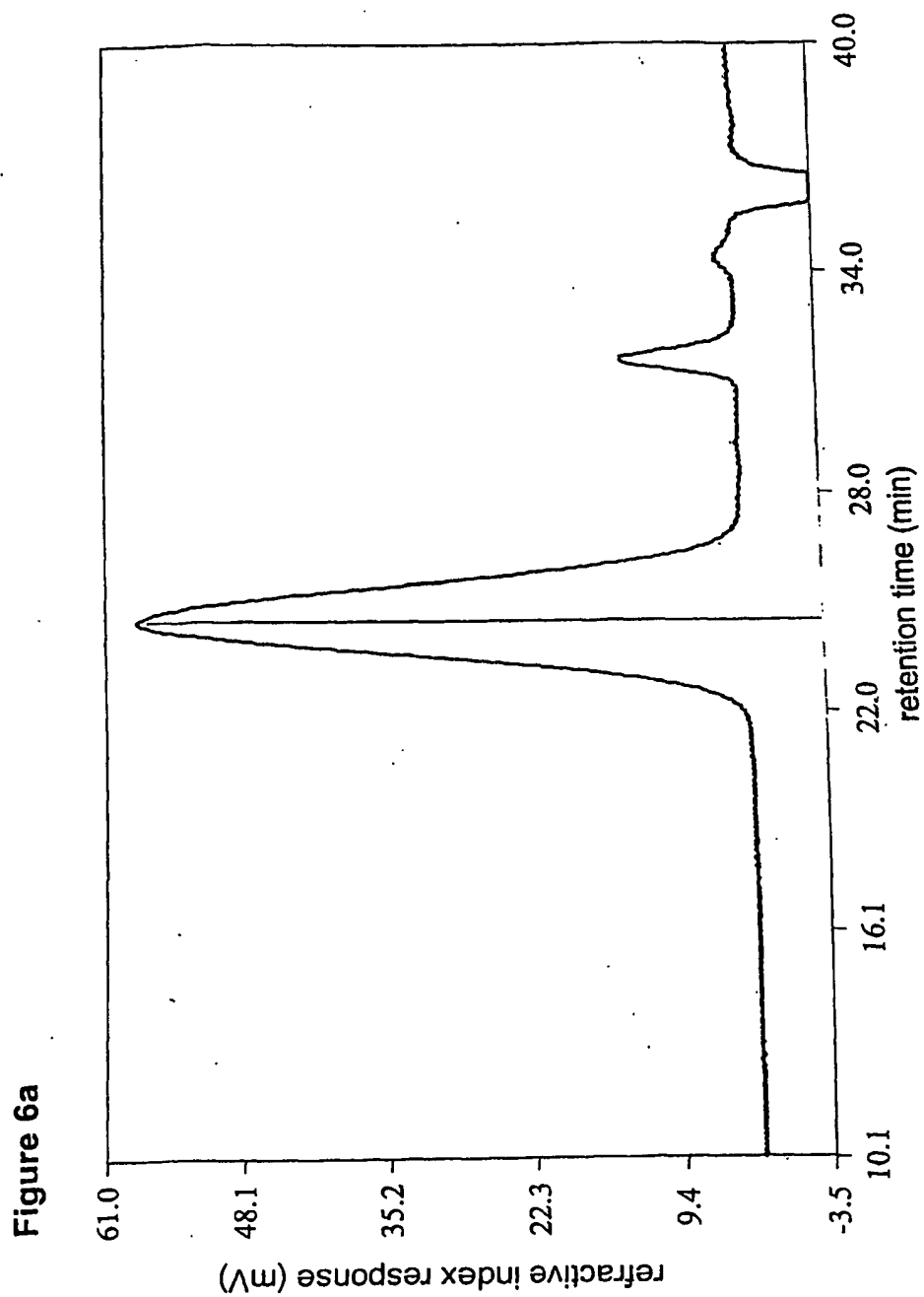


Figure 5

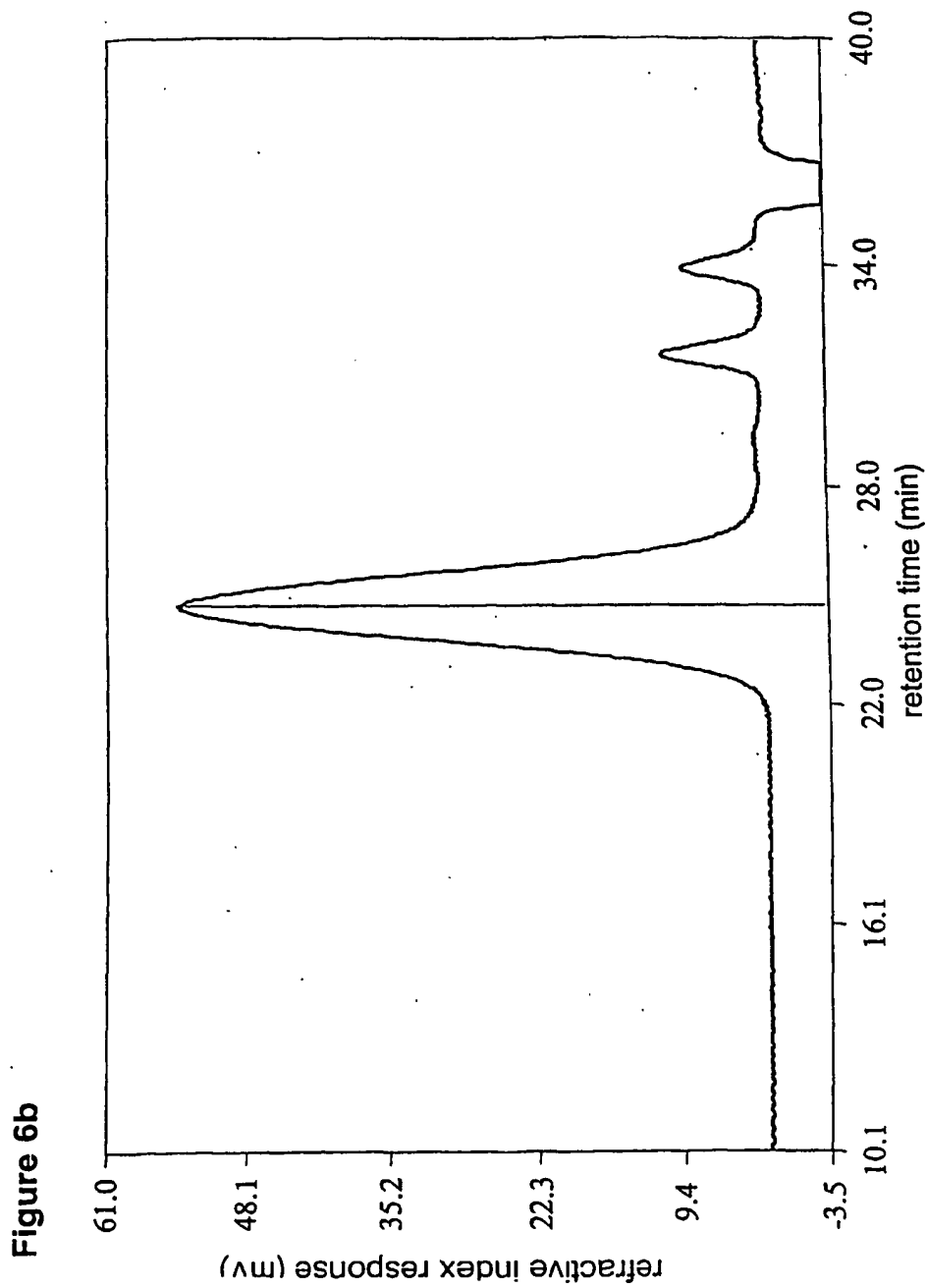


Monofunctional polysialic acid cannot form unintended by-products described for periodate-oxidised natural polysialic acid in Fig. 1

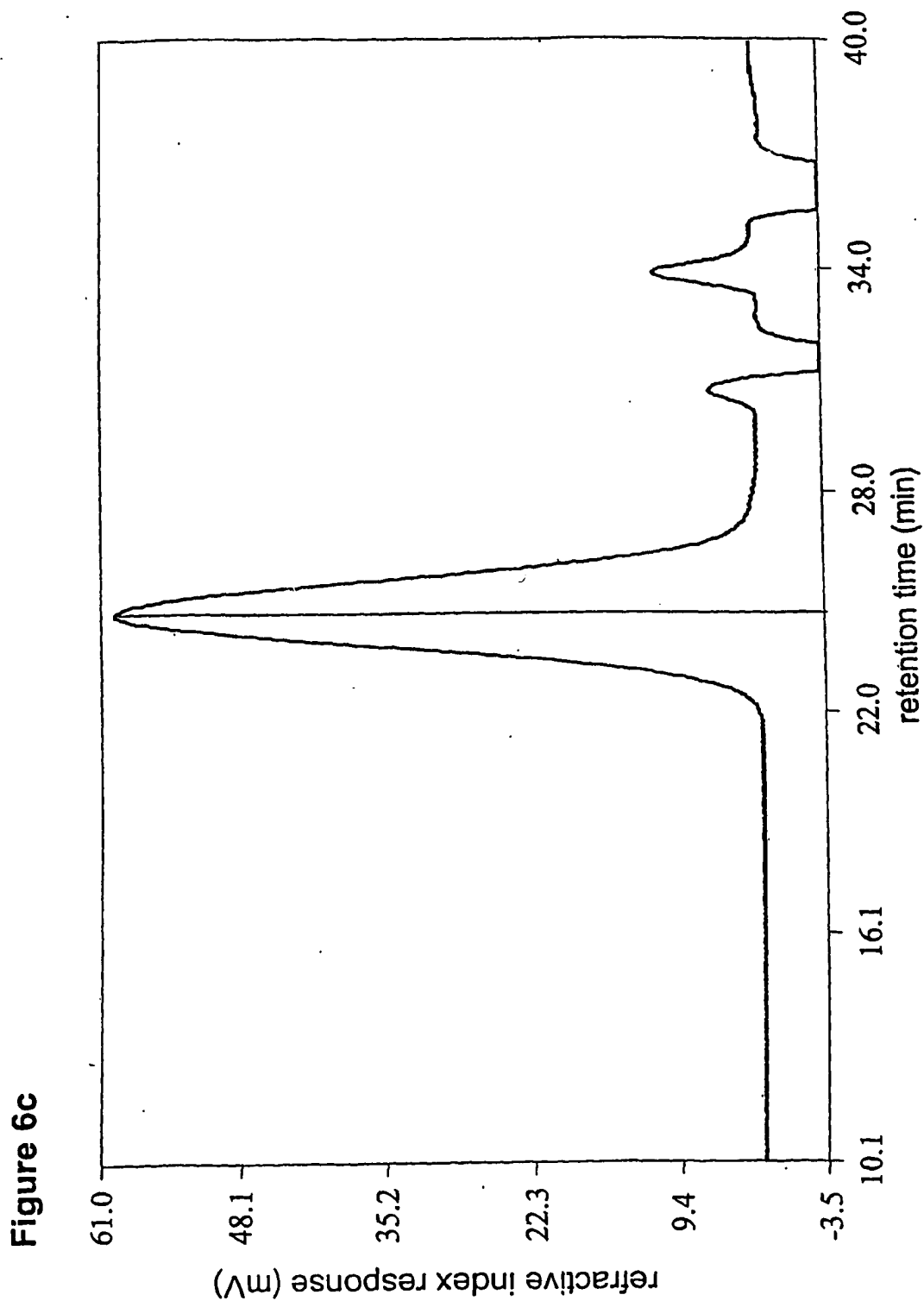
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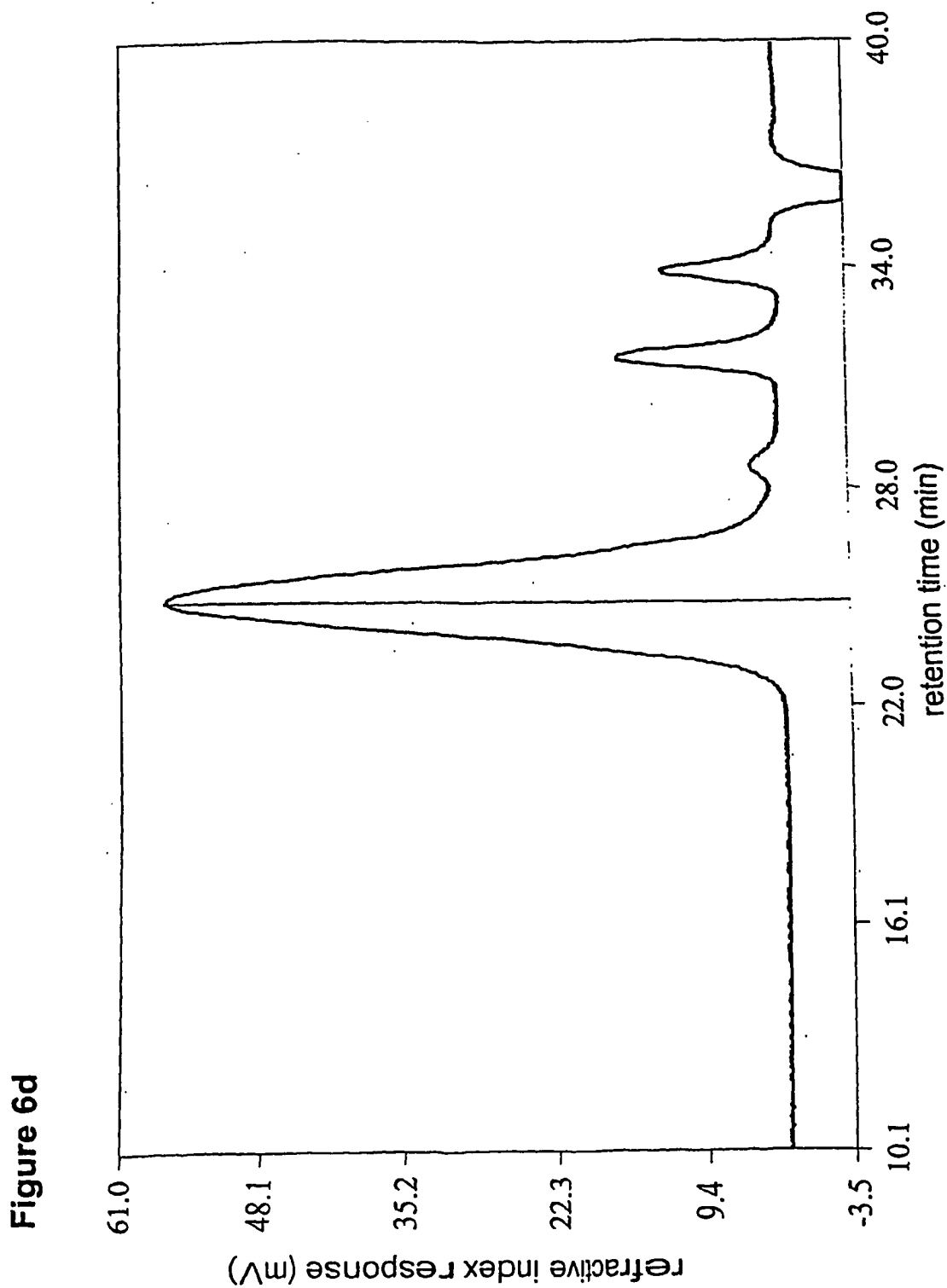
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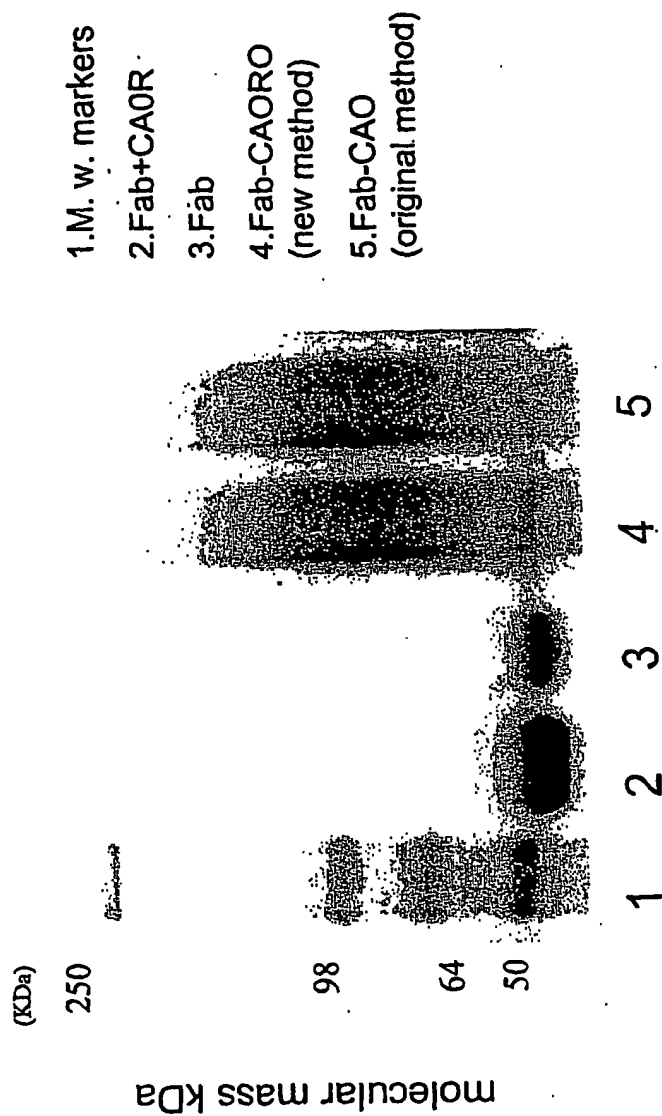
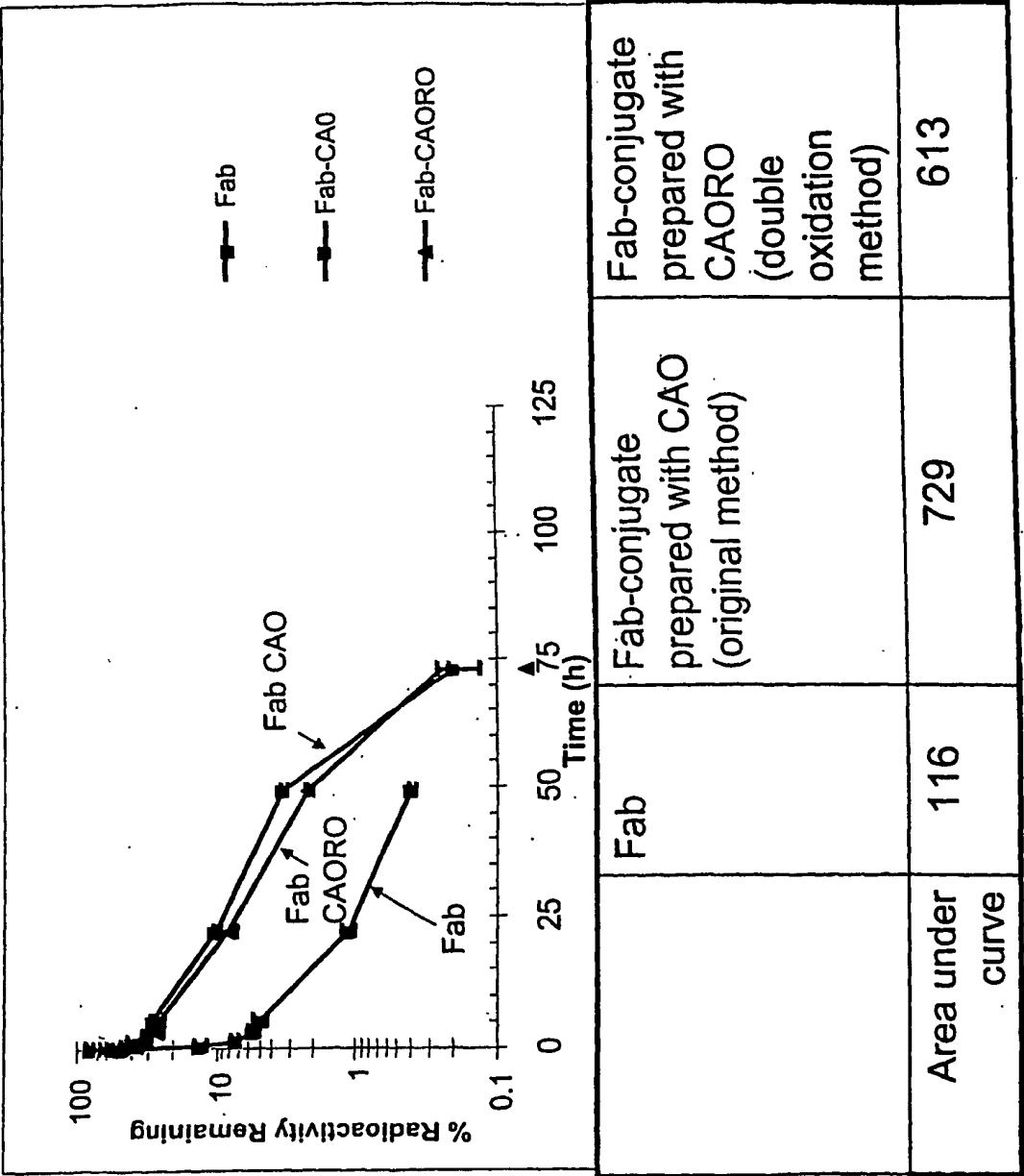


Figure 7

Figure 8



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Figure 9

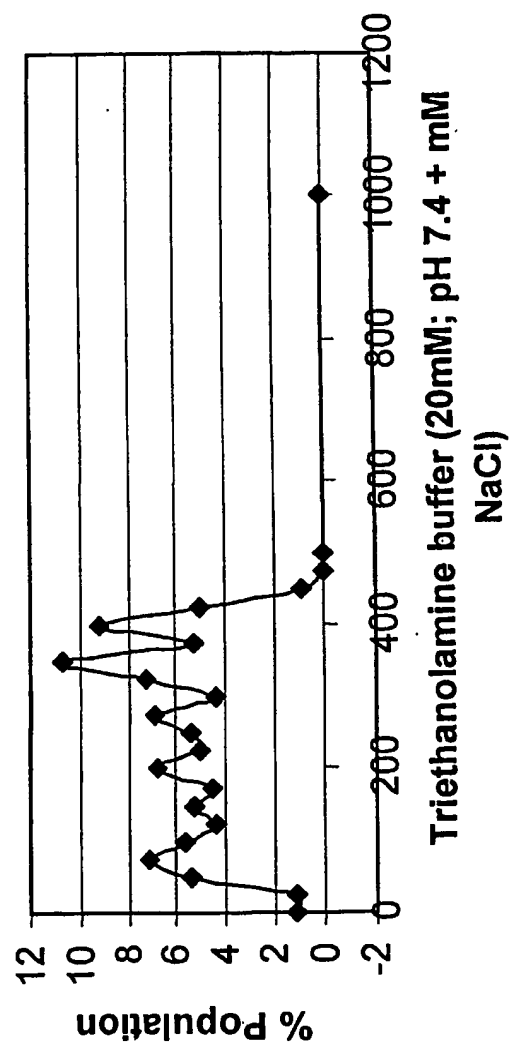


Figure 10: A typical native page of colominic acid fractions with m.w.
(B = broad dispersed; N = narrow dispersed)

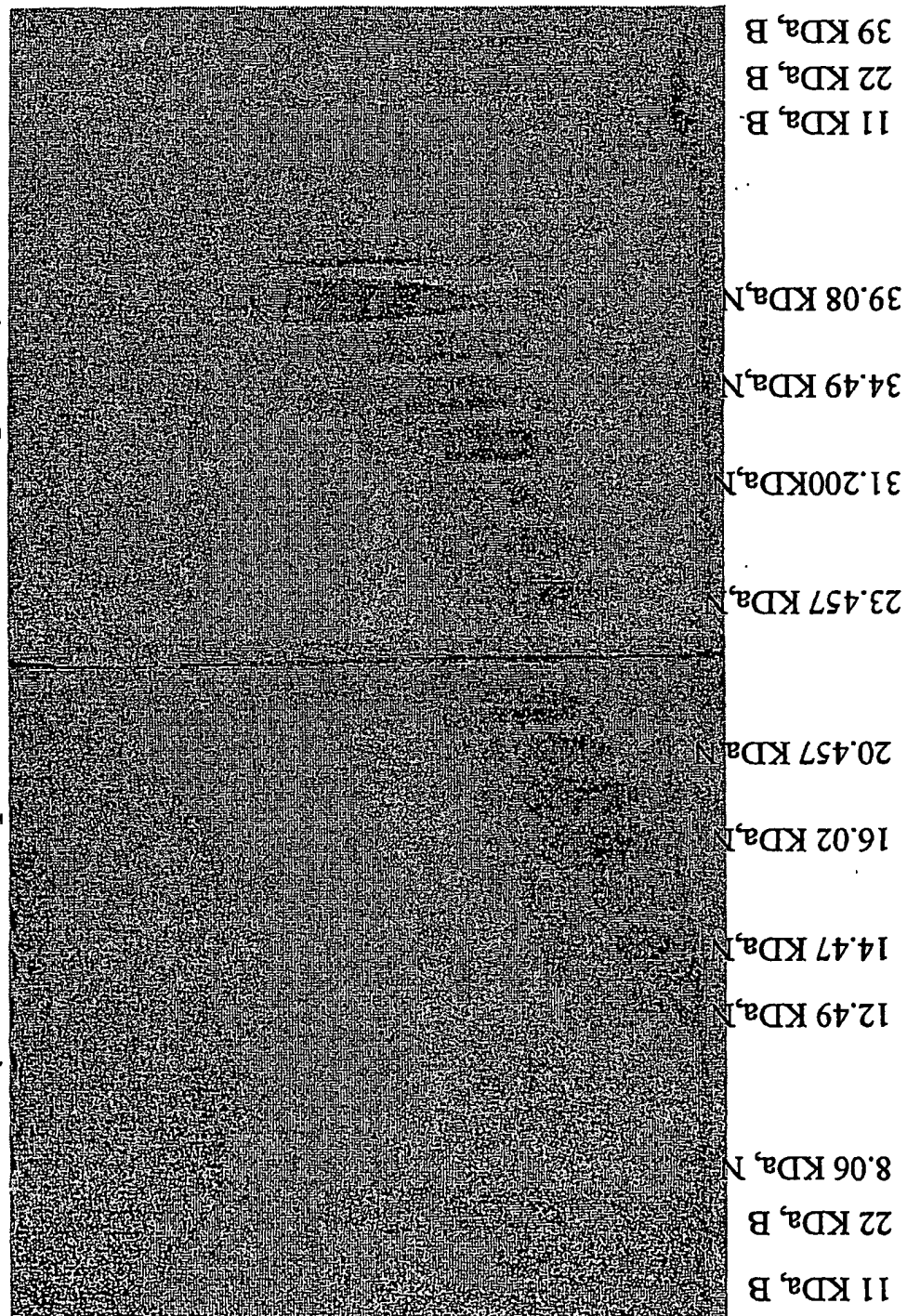
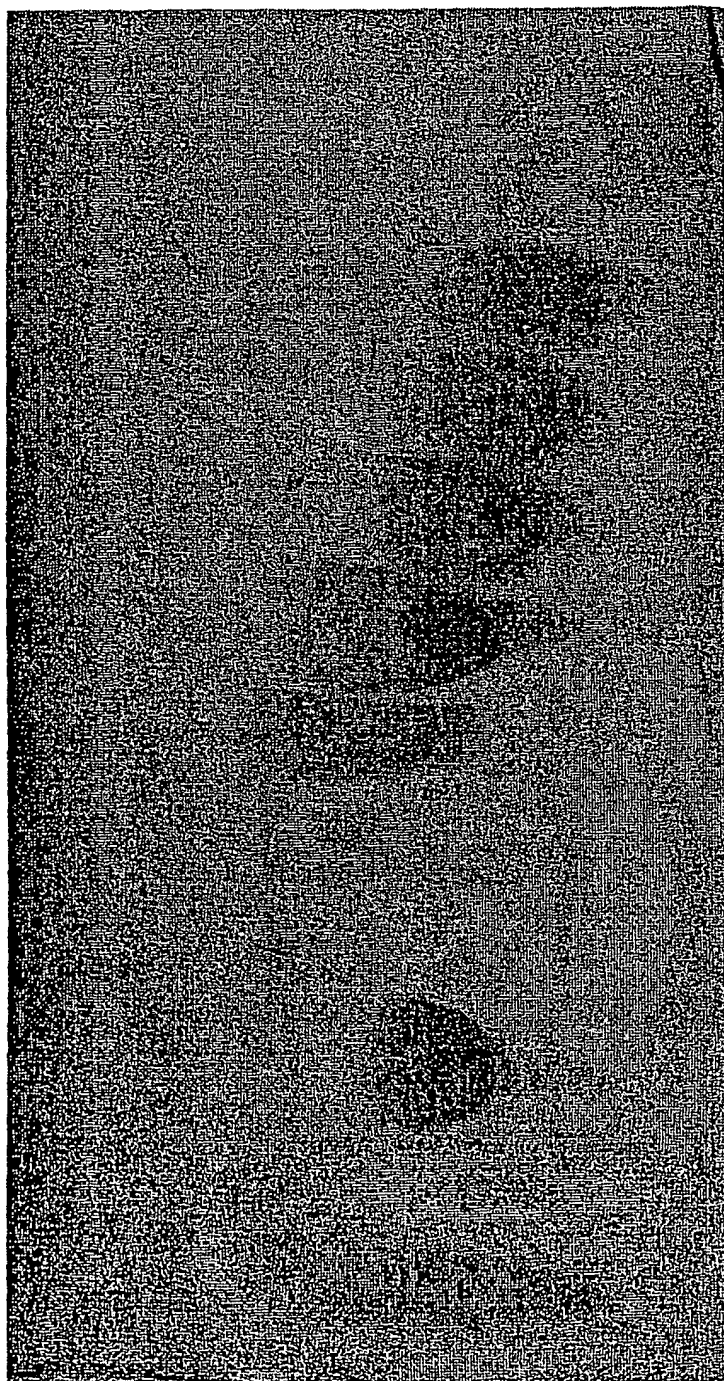


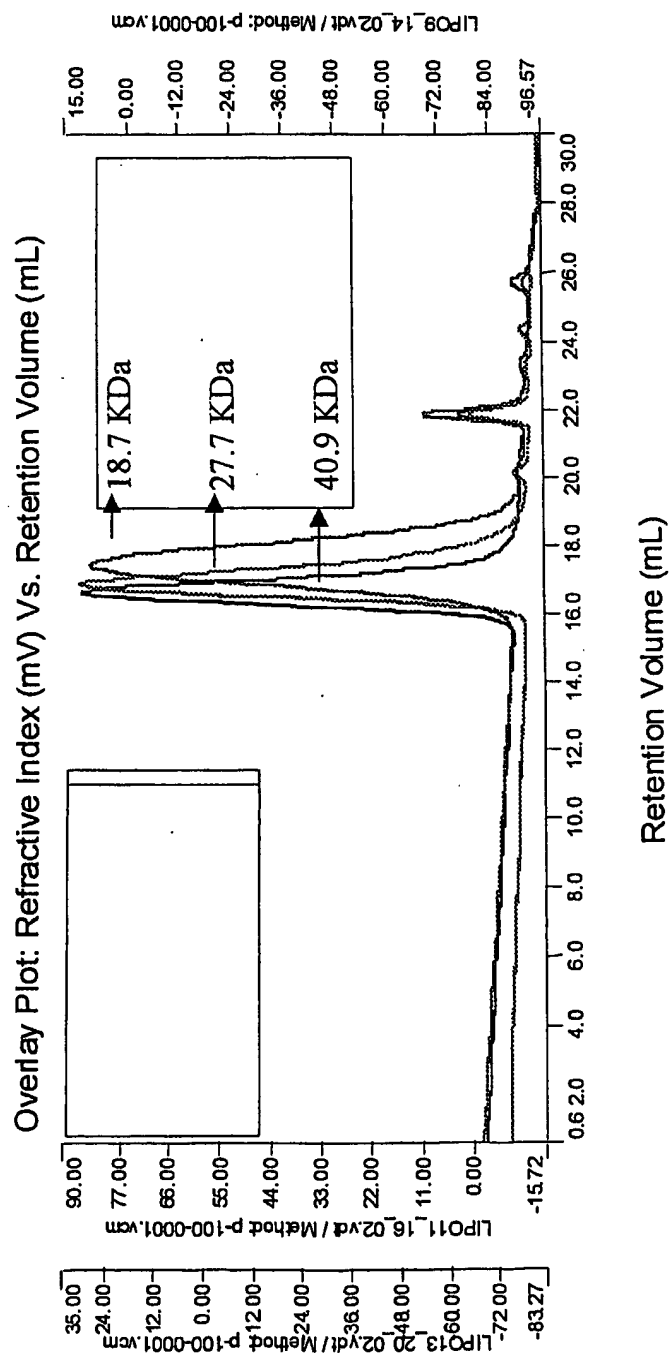
Figure 11



39K 22K 400Π mM 450Π mM 475 mM 450 mM 425 mM 400 mM 375 mM 350 mM 325 mM 11K

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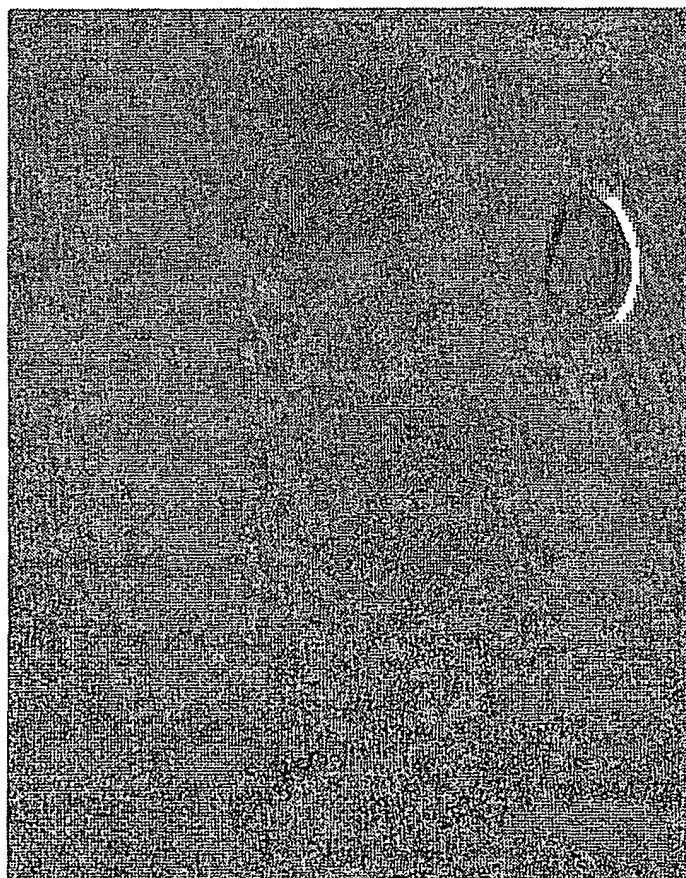
Figure 12: A typical GPC chromatogram for CA fractions



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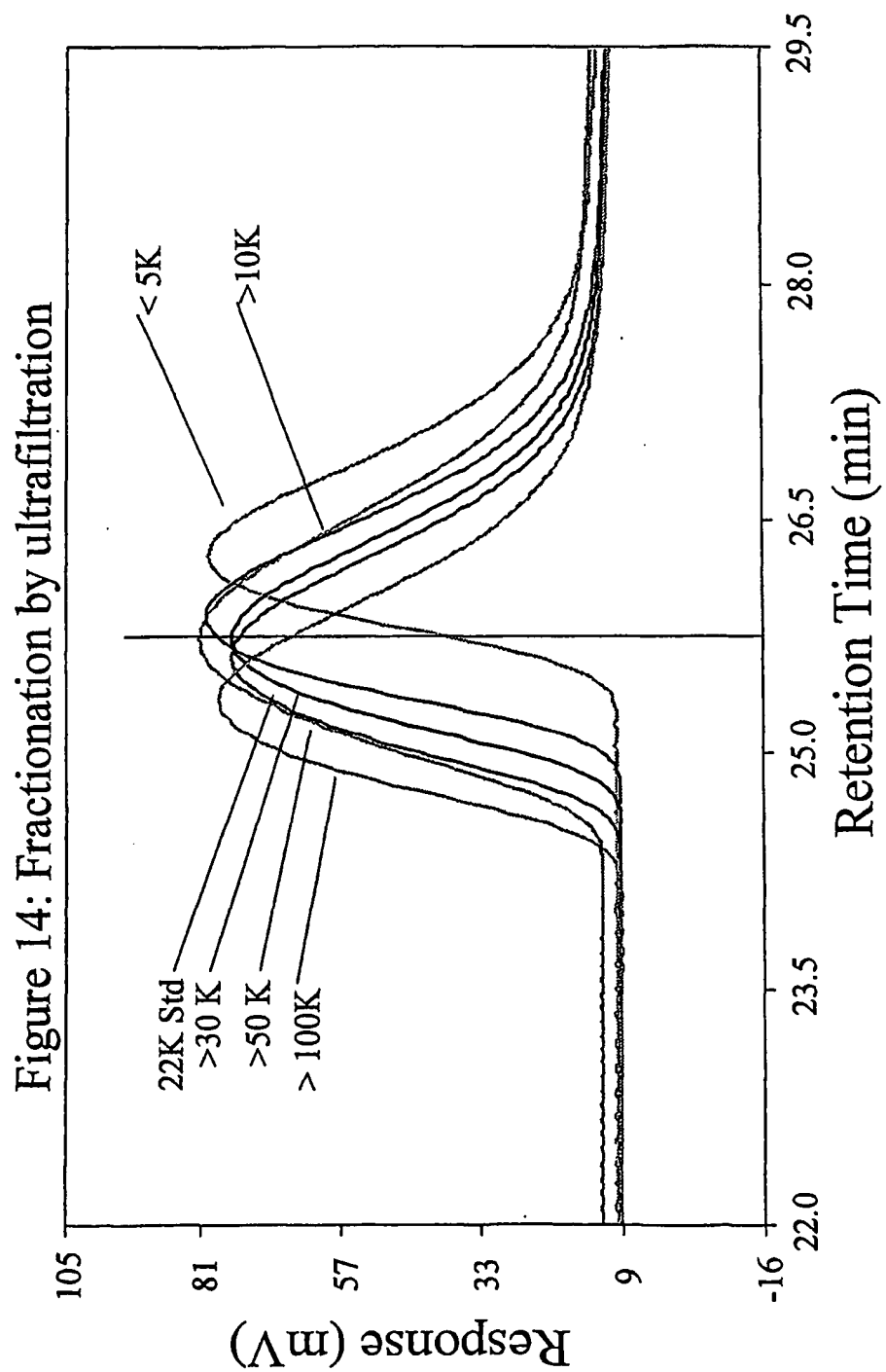
Figure 13 : Colominic acid samples from different steps of fractionation

- 1) 18.7 kDa disperse
- 2) 32.2 kDa from IEC
- 3) 32.2 kDa ultrafiltered
- 4) 32.2 kDa post oxidation
- 5) 40.9 KDa from IEC
- 6) 40.9 KDa ultrafiltered
- 7) 4.90 KDa post oxidation



1 2 3 4 5 6 7

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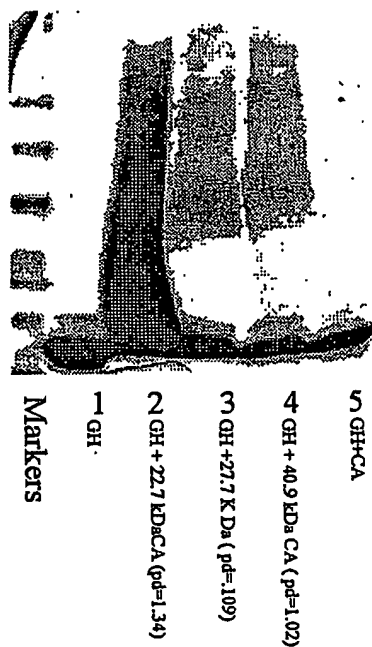


Figure 15

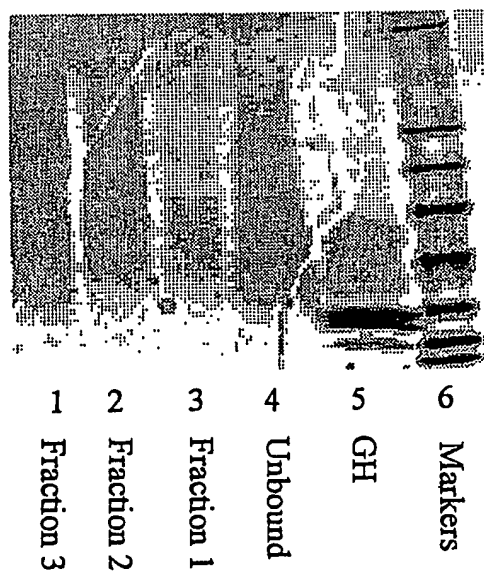


Figure 16

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Figure 17

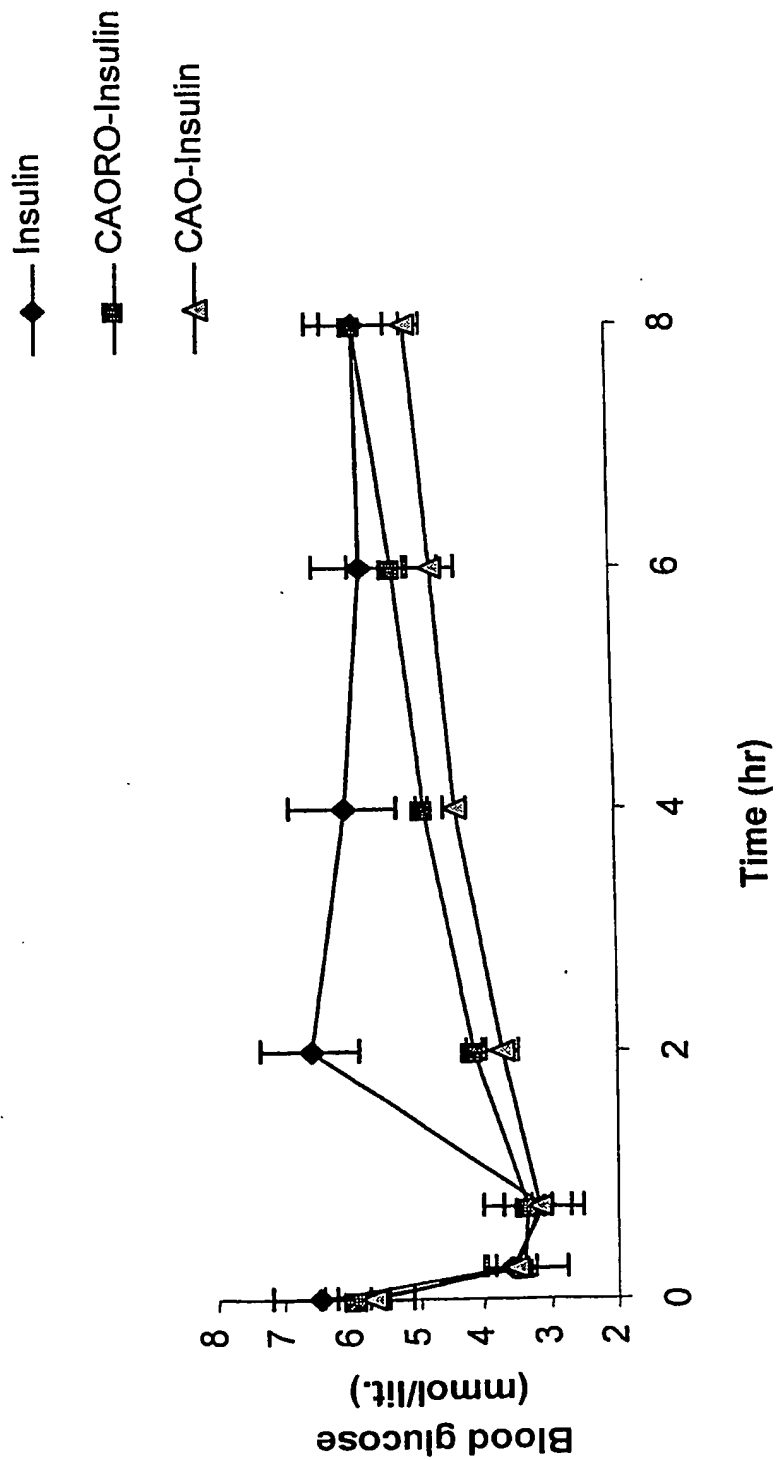


Table 6: Ion exchange chromatography of CA22.7: Scale up (900 matrix)

Sample (in 20mM Triethanolamine buffer+mM NaCl, pH7.4)	M.W. (Pd) 12.5 g batch	M.W. (Pd) 25 g batch
350 mM	15490 (1.008)	10.470 (1.173)
375 mM	19960 (1.010)	24659 (1.019)
400 mM	25829 (1.019)	29573 (1.018)
425 mM	33763 (1.023)	34160 (1.011)
450 mM	46880 (1.058)	44400 (1.013)
475 mM		28500 (1.376)

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